REMARKS

Claims 1-5, 7, and 9-13 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Claims 1-5, 7, 9-13, 16-20, 22-25, 30-33, 35-39, 42, 44, and 46-52 stand under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0083245 by Beeler, JR. (hereinafter Beeler) in view of US Patent 6,505,216 to Schutzman et al. (hereinafter Schutzman), US Patent 6,883,110 to Goddard (hereinafter Goddard) and US Patent 6,324,654 to Wahl et al. (Wahl).

Applicant thanks the Examiner for the telephone interview of May 12, 2009. We discussed the present invention and a proposed amendment. The Examiner suggested specifying the minimum and maximum packet proximity parameters.

Response to rejections under 35 U.S.C. § 101

Claims 1-5, 7, and 9-13 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. Applicant has amended claim 1 with the limitations "...a storage device storing executable code..." and "...a processor executing the executable code, the executable code comprising...." The amendment is well supported by the specification. See page 8, ¶ 32-33. Claims 2 and 10-12 are amended to conform to amended claim 1. Applicant submits that as amended claims 1-5, 7, and 9-13 are directed to statutory subject matter under 35 U.S.C. § 101. Claims 16, 19, and 46 are similarly amended. Claims 30 and 36 are amended to specify that a step is performed "...by use of a processor...." The amendment is well supported by the specification. See page 8, ¶ 32.

Amendments to the Claims

Applicant has amended claim 1 with the limitation "…receiv~~e~~ing data to be backed up from a source client, the data comprising a plurality of backup data packets …." The amendment is well supported by the specification. See page 14, ¶ 51.

Applicant has also amended claim 1 with the limitation "…generat~~e~~ing a ~~non-transparent sequence of a plurality of target clients, wherein the~~ non-transparent sequence compris~~es~~ing packet identifiers for each of the plurality of backup data packets arranged in an order that the~~a~~ plurality of backup data packets are stored from the source client to~~on~~ a~~the~~ plurality of target clients, wherein~~ and~~ the non-transparent sequence is unique and exclusively accessible to the sequence management apparatus~~a global sequence manager~~…." The amendment is well supported by the specification. See pages 10-11, ¶ 40; pages 25-26, ¶ 86; page 26, ¶ 87; fig. 10, ref. 1004, 1006, 1008, 1010.

Claim 1 is further amended with the limitation "…wherein each physical distance between each target client is not less than a specified client packet proximity minimum distance ~~packet proximity~~ parameter and not more than a specified client packet proximity maximum distance ~~packet proximity~~ parameter and each physical distance between the source client and each target client is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance ~~packet proximity~~ parameter,~~ and~~ the specified client packet proximity maximum distance ~~packet proximity~~ parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity

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maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers...." The amendment is well supported by the specification. See page 10-11, ¶40; pages 20-21, ¶ 71; page 21, ¶ 72; fig. 6, ref. 614, 616.

Applicants have also amended claim 1 with the limitation "...assemblinge the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers...." The amendment is well supported by the specification. See pages 25-26, ¶ 86; page 26, ¶ 87; fig. 10, ref. 1004, 1006, 1008, 1010.

Applicant has added new claim 53 with the limitation "...creating a source client profile for the data, the source client profile comprising the unique data identifier, a data source location, a data packet compression, a data packet redundancy, a data packet encryption, a data backup proximity comprising the specified minimum distance packet proximity parameter and the maximum distance packet proximity parameter, a data synchronization parameter indicating how often each target client should be synchronized with the source client, and the non-transparent sequence...." The limitation is well supported by the specification. See page 23, ¶ 78 – page 24, ¶ 81; fig. 7. New claim 53 also includes the limitation "...the packet storage module creating a source data record for each packet, the source data record comprising a unique data identifier, a packet identifier, and at least one target identifier for each target client storing the packet...." The limitation is well supported by the specification. See page 24, ¶ 82; fig. 8. New claims 54-59 includes similar limitations.

Claims 2, 4, 5, 7, 9-13, 16, 17, 19, 20, and 22-24 are amended to remove "configured" language. Claims 17, 32, 42, 47, 50, and 52 are amended to conform to amended predecessor

claims and cure informalities. Claim 18 is canceled.

Response to rejections of claims under 35 U.S.C. § 103(a)

Claims 1-5, 7, 9-13, 16-20, 22-25, 30-33, 35-39, 42, 44, and 46-52 stand under 35 U.S.C.

103(a) as being unpatentable over Beeler in view of Schutzman, Goddard, and Wahl. Applicant

respectfully traverses this rejection.

Claim 1 as amended includes the limitations:

"…a storage device storing executable code;

a processor executing the executable code, the executable code comprising

a client request module receiving data to be backed up from a source

client, the data comprising a plurality of backup data packets;

a sequence module **generating a non-transparent sequence comprising**

packet identifiers for each of the plurality of backup data packets arranged

in an order that the plurality of backup data packets are stored from the

source client to a plurality of target clients, wherein the non-transparent

sequence is unique and exclusively accessible to the sequence management

apparatus;

a packet storage module **storing the data on the plurality of target**

clients according to the non-transparent sequence, wherein the source client

and the plurality of target clients are organized in a grid computing system,

wherein each physical distance between each target client storing backup

data packets is not less than a specified client packet proximity minimum

distance parameter and not more than a specified client packet proximity

maximum distance parameter and each physical distance between the source

client and each target client storing backup data packets is not less than a

specified client backup proximity minimum distance parameter and not

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more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance parameter, the specified client packet proximity maximum distance parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers;

a packet retrieval module retrieving the plurality of backup data packets backed up on the plurality of target clients; and

a data assembly module **assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers.**"

Emphasis added.

Claims 16, 19, 30, 36, 37, and 46 include similar limitations. Thus the present invention claims receiving data to be backed up from a source client, the data comprising a plurality of backup data packets and generating a non-transparent sequence comprising packet identifiers for each of the plurality of backup data packets arranged in_an order that the plurality of backup data packets are stored from the source client to a plurality of target clients, wherein the non-transparent sequence is unique and exclusively accessible to the sequence management apparatus. See claim 1. The present invention further claims storing the data on the plurality of target clients according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system and each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance parameter and not more than a specified client packet proximity maximum distance parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity

minimum distance parameter and not more than a specified client backup proximity maximum

distance parameter, the specified client packet proximity minimum distance parameter, the

specified client packet proximity maximum distance parameter, the specified client backup

proximity minimum distance parameter, and the specified client backup proximity maximum

distance parameter each specifying a distance value measured in a unit selected from miles and

kilometers. See claim 1. In addition, the present invention claims retrieving the plurality of

backup data packets backed up on the plurality of target clients and assembling the retrieved

plurality of backup data packets in the non-transparent sequence of the packet identifiers. See

claim 1. By storing the backup data packets according to the non-transparent sequence, the data

can only be restored using the non-transparent sequence, adding additional security to the data

backup. See page 15, ¶ 54. In addition, by selecting only target clients that satisfy client packet

proximity and client backup proximity minimum and maximum distance parameters, the present

invention assures that the accessibility of a first packet is independent of the accessibility of a

second packet and that the source client and target clients are sufficiently separate. See page 21,

¶ 71-72.

Applicant submits that claim 1 is distinguished from the combination of Beeler,

Schutzman, Goddard, and Wahl by claiming "…generating a non-transparent sequence

comprising packet identifiers for each of the plurality of backup data packets arranged in an order

that the plurality of backup data packets are stored from the source client to a plurality of target

clients, wherein the non-transparent sequence is unique and exclusively accessible to the

sequence management apparatus…," "…storing the data on the plurality of target clients

according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance parameter and not more than a specified client packet proximity maximum distance parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance parameter, the specified client packet proximity maximum distance parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers…," and "…assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers…."

The Examiner notes Beeler's teaching of a target list of servers and Goddard's teaching of data portions in server appliance storage stored to client information handling systems. Office Action of April 2, 2009 (OA), page 3, line 21 – page 4, line 2; citing Beeler, page 5, ¶ 78-79; Goddard, col. 4, line 60 – col. 5, line 13. The Examiner further notes Goddard's disclosure of server data divided into portions and stored on clients. OA, page 5, lines 15-17; citing Goddard, col. 4, line 60 – col. 5, line 13. In addition, the Examiner notes Beeler's teaching of arbitrary distances between target and source servers and Wahl's teaching of mirroring data across a hall or hundreds of miles away. OA, page 4, lines 8-14; citing Beeler, page 5, ¶ 77; page 6, ¶ 84-85;

fig. 3 and 5; OA page 6, lines 6-10; citing Wahl, col. 23, line 55 – col. 24, line 23. The Examiner further cites Goddard's disclosure of retrieving portions of an image to reconstruct the image. OA, page 5, lines 17-19; citing Goddard, col. 6, lines 12-27; fig. 5.

As a result, Applicant has amended claim 1 with the element "…generating a non-transparent sequence comprising packet identifiers for each of the plurality of backup data packets arranged in an order that the plurality of backup data packets are stored from the source client to a plurality of target clients, wherein the non-transparent sequence is unique and exclusively accessible to the sequence management apparatus…." In contrast, Beeler only discloses a list of target servers, rather than a sequence of packet identifiers. See Beeler, page 6, ¶84. However, as amended, claim 1 claims generating a non-transparent sequence of packet identifiers arranged in an order that the plurality of backup data packets are stored from the source client to a plurality of target clients. Beeler does not disclose a sequence of packet identifiers. Applicant therefore submits that Beeler and also Schutzman, Goddard, and Wahl do not teach this element of claim 1.

Applicant has further amended claim 1 with the elements "…storing the data on the plurality of target clients according to the non-transparent sequence, wherein the source client and the plurality of target clients are organized in a grid computing system, wherein each physical distance between each target client storing backup data packets is not less than a specified client packet proximity minimum distance parameter and not more than a specified client packet proximity maximum distance parameter and each physical distance between the source client and each target client storing backup data packets is not less than a specified client

backup proximity minimum distance parameter and not more than a specified client backup proximity maximum distance parameter, the specified client packet proximity minimum distance parameter, the specified client packet proximity maximum distance parameter, the specified client backup proximity minimum distance parameter, and the specified client backup proximity maximum distance parameter each specifying a distance value measured in a unit selected from miles and kilometers...." Thus target clients must be *both with minimum and maximum distances from each other and minimum and maximum distances from a source client*. In contrast, Beeler only teaches selecting a location of a target server with distance requirements. Beeler, page 6, ¶ 85. In addition, Wahl only discloses that data may be mirrored a short distance (across the wall) or a long distance (hundreds of miles away) but does not teach that target clients must be both with minimum and maximum distances from each other and from a source client. Applicant therefore submits that Beeler and Wahl, and also Goddard and Schutzman do not teach these elements.

Applicant has further amended claim 1 with the element "...assembling the retrieved plurality of backup data packets in the non-transparent sequence of the packet identifiers...." In contrast, Goddard only teaches reconstructing an image, but does not disclose assembling backup data packets in the sequence of packet identifiers as claimed in claim 1. Applicant therefore submits that Goddard, and also Beeler, Schutzman, and Wahl do not teach this element.

Because Beeler, Schutzman, Goddard, and Wahl do not teach each element of the claim 1, Applicant submits that claim 1 is allowable, and that claims 16, 19, 30, 36, 37, and 46 are allowable for the same reasons as claiming similar elements. Applicant further submits that

claims 2-5, 7, 9-13, 17, 20, 22-25, 31-33, 35, 38, 39, 42, 44, and 47-59 are allowable as depending from allowable claims.

With further regards to claims 4, 20, 33, 47, 50, and 52, Applicant submits that Beeler, Shutzman, and Goddard does not disclose the limitation of "…using a unique data identifier corresponding to the data to map the data to the source client, the unique data identifier identifying original, non-backup data and indicating a uniqueness of the data as compared to other data…" See claim 47. The Examiner argues that Goddard's teaching of data portions in server appliance storage stored to client information handling systems discloses this limitation. OA, page 7, lines 8-12, citing Goddard, col. 4, line 59 – col. 5, line 13; fig. 2.

Applicant respectfully disagrees. Goddard does not disclose mapping data with an identifier, but shows identifiers in figure 2 for illustrative purposes. Goddard, col. 4, line 59 – col. 5, line 13; fig. 2. Goddard therefore does not disclose mapping data with an identifier. Applicant therefore submits that claims 4, 20, 33, 47, 50, and 52 are allowable as Beeler, Shutzman, and Goddard does not disclose this element.

Conclusion

As a result of the presented remarks, Applicant asserts that the application is in condition for prompt allowance. Should additional information be required regarding the traversal of the rejections of the claims enumerated above, Examiner is respectfully asked to notify Applicant of such need. If any impediments to the prompt allowance of the claims can be resolved by a telephone conversation, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,

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